



THE COMMONWEALTH OF MASSACHUSETTS

WATER RESOURCES COMMISSION

100 CAMBRIDGE STREET, BOSTON MA 02114

Meeting Minutes for March 9, 2006

Minutes approved October 11, 2007

Members in Attendance:

Kathleen Baskin	Designee, Executive Office of Environmental Affairs
Marilyn Contreas	Designee, Department of Housing and Community Development
Jonathan Yeo	Designee, Department of Conservation and Recreation
Glenn Haas	Designee, Department of Environmental Protection
Mark Tisa	Designee, Department of Fish and Game
Joseph E. Pelczarski	Designee, Massachusetts Office of Coastal Zone Management
David Rich	Public Member
John LeBeaux	Public Member

Others in Attendance:

Mike Gildesgame	DCR
Bruce Hansen	DCR
Frank Hartig	DCR
Linda Hutchins	DCR
Michele Drury	DCR
Sara Cohen	DCR
Anne Monnelly	DCR
Vandana Rao	EOEA
Martha Stevenson	LWVM & WSCAC
Duane LeVangie	DEP
Pam Heidell	MWRA
Cleon H. Turner	State Representative, 1 st Barnstable District
Todd Richards	Massachusetts Division of Fisheries & Wildlife
Roger Frymire	Citizen, Cambridge, MA
Andrew Miller	Camp Dresser & McKee
Elliott Rector	Conservation Law Foundation
Margaret Kearns	DFG, Riverways
Kerry Mackin	Ipswich River Watershed Assn.
Steve Garabedian	USGS
Margaret Callanan	EOEA
Paul Lauenstein	WSCAC/Neponset River Watershed Assn.
Michael Kashiwagi	Massachusetts Division of Fisheries & Wildlife
Alicia Norris	Massachusetts Division of Fisheries & Wildlife
Christopher Nowak	VHB
Paul Gorman	Leggs Hill YMCA

Tom Arnold Private Citizen
Michael Stankovich Town of North Attleborough

Agenda Item #1: Executive Director's Report

Hansen provided an update on the hydrologic conditions for February 2006:

- Statewide average precipitation in February was 73% of normal, with some variation between the Cape Cod and Islands region and Central region.
- The snowpack is below normal for this time of year.
- Groundwater levels were normal to above normal statewide.
- Streamflow was above normal in all of Massachusetts. The composite streamflow by the end of the month and into the early part of March declined to the normal to slightly below-normal range.
- Reservoir levels were above normal for this time of year.
- NOAA's Climate Prediction Center does not show any drought forecast through May 2006 in Massachusetts or New England.

Baskin noted that Steve Garabedian of USGS had accepted a new position as director of the Conte Lab at Turners Falls. She noted that work completed under Mr. Garabedian's direction had helped the state develop policies for many programs, and she thanked him for his work. Tisa suggested that Mr. Garabedian might consider hosting a Water Resources Commission meeting at the Conte Lab in May or June.

Open Forum:

Tisa requested an update on the vacant positions for the Water Resources Commission. Baskin replied that paperwork for the recommended candidates is being processed. Baskin also thanked Dave Rich for agreeing to continue as a member of the Water Resources Commission after his retirement from the Mashpee Water District.

Haas announced that the public comment period had closed on the water quality standards and dredging regulations. Many comments were received. Also, a public notice on a new maximum contaminant level for perchlorate in the drinking water standards would be published at the end of March.

Baskin announced that Agenda Item 7, Draft Streamflow Standards for Massachusetts, will be postponed.

Agenda Item #2: Vote: Approval of the minutes for December 2005 and January 2006

Baskin invited motions to approve the meeting minutes for December 8, 2005, and January 12, 2006.

V O T E	A motion was made by Haas with a second by Contreas to approve the meeting minutes for December 8, 2005. The vote to approve was unanimous of those present.
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V O T E	A motion was made by Rich with a second by LeBeaux to approve the meeting minutes for January 12, 2006. The vote to approve was unanimous of those present, with one abstention.
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Agenda Item #3: Update: DEP's Water Management Policy and Guidance

LeVangie provided an overview of revisions to the April 2004 Water Management Act permitting policy and guidance. These resulted from a public process. The stressed basins document provides an underpinning for the guidance and policy, which was intended to protect stressed water resources, reduce nonessential outside water use, apply performance standards, and mitigate, where feasible. The guidance revision gives suppliers options to meet performance standards.

LeVangie then reviewed the performance standards. For the residential water use standard of 65 gallons per capita per day (gpcd), DEP has proposed an enforcement margin of 66 to 72 gpcd in high- and medium-stress basins and has clarified that permittees have two full years to comply with the standard. In low-stress and unassessed basins, the performance standard is 80 rgpcd, with no enforcement margin. For unaccounted-for water (UAW), permittees have two full calendar years to comply with the performance standard of 10% UAW. In high and medium-stress basins, DEP has introduced an enforcement margin of 11 to 15%. In low-stress and unassessed basins, the standard is 15%, with no enforcement margin. If a permittee fails to meet the performance standard but is within the enforcement margin, a compliance plan is required. The plan is filed with the Annual Statistical Report and explains how the permittee plans to meet the performance standard by the next five-year permit review or permit renewal. LeVangie also described the minimum options for compliance plans for meeting the rgpcd and UAW performance standards.

Instead of a summer cap on withdrawals, permittees have two options for imposing restrictions to control nonessential outdoor water use: one is calendar-based (May 1 through September 30) and the other is tied to streamflows. The streamflow-based approach will use the Aquatic Base Flow default value of 0.5 cubic feet per second per square mile of drainage area (cfs/m). In high-stress basins with a summer-to-winter water-use ratio greater than 1.2, only hand-held watering would be allowed when flows are below the streamflow trigger. In medium-stress basins, and in high-stress basins with a summer-to-winter ratio less than 1.2, one day per week outdoor watering would be allowed below the streamflow trigger. Alternately, using the seasonal approach of restrictions from May 1 to September 30, suppliers in each of the above groupings would be given an additional day of watering per week because their restrictions would be in place sooner and longer than those triggered by streamflow. Thus suppliers in medium-stress basins or those in high-stress basins with a summer-to-winter water-use ratio below 1.2 would be able to allow two days per week of outside watering. Those in high-stress basins with a summer-

to-winter ratio of greater than 1.2 would be able to allow one day a week of outside watering. Should the state reach a drought level of “Watch” or greater, as declared by the commonwealth’s Drought Task Force, suppliers implementing the calendar approach would lose that additional day of watering. In response to a question, LeVangie clarified that streamflow restrictions would have to be implemented only when the gage drops below a specified streamflow number. Yeo asked how DEP would enforce the summer withdrawal limits on reservoir systems. LeVangie responded that DEP would expect the surface water supplier to explain why the standard may not apply to their situation.

Mackin asked if DEP would be taking public input on this policy. LeVangie was uncertain, but noted that there is a general public comment process associated with Water Management Act permits.

Rich asked what consideration would be given to a community in a high-stress basin that also experiences a huge influx of seasonal population; Rich noted that such communities may not exist, and LeVangie also noted that most coastal communities are currently in unassessed basins. LeVangie acknowledged that there are challenges in calculating residential consumption for communities with a large influx of seasonal residents. Unassessed basins will use 80 gpcd for residential water use and 15% UAW. He added that DEP has been working with water suppliers on Cape Cod to improve reporting methods and their Annual Statistical Reports, on which reporting has been very inconsistent. Rich urged DEP to develop a standardized methodology for estimating seasonal population.

In response to a question about where on the stream aquatic base flow would be measured, LeVangie responded that the U.S. Fish and Wildlife Service’s Aquatic Baseflow methodology would apply as measured at the nearest gage that is downstream of the withdrawal point. He added that all basins that are designated as high-stress and medium-stress are gaged.

Lauenstein asked if the residential water use values used are annual averages. LeVangie confirmed that as correct. Lauenstein asked if DEP is considering using a summer per capita water use value, and LeVangie responded that that is not yet being considered.

LeVangie clarified that the policy does not result in no new growth. The policy is meant to encourage growth that is environmentally conscious. The policy establishes baseline use, based on a three-year average, either from the most recent years or the registered amount, whichever is higher. One way of mitigating new growth is through offsets. A committee is currently discussing offsets and how to calculate them. He explained how the policy establishes baseline use and when an offset feasibility study would be required. The feasibility study would be required after the baseline use, as reported on an Annual Statistical Report, is exceeded. At that time, a study scope and schedule would be established. Mackin expressed concern that water suppliers may lean toward less conservation during the year prior to permit renewals. LeVangie indicated that DEP is aware of that concern and will be looking out for that in its reviews.

LeVangie next outlined the schedule and process for five-year reviews of Water Management Act permits. In response to a question about which performance standards apply in the case where a town has sources in multiple basins, LeVangie responded that the performance standards

for the basin with the highest level of stress would apply. In the case of offsets, there would have to be a nexus between the withdrawal impact and the offset; to the extent possible, the offset should be in the basin affected by the withdrawal. In response to the point that stress classifications may change over time, Baskin commented that streamflow standards were to be released soon, followed by stress classifications next year.

Richards asked why the requirements for unassessed basins were the same as those for low-stress basins. LeVangie responded that workload was a primary consideration, but there are also many unknowns associated with unassessed basins, many of which are in coastal areas and have challenges associated with seasonal population fluctuations. Baskin added that streams in these areas also lack USGS streamflow gages, which do not work well in tidal rivers. She pointed out that new gages were to be installed starting this spring. LeVangie added that DEP can apply higher performance standards in low-stress and unassessed basins, if appropriate.

Baskin explained that the new methodology for stressed basin designation will compare actual streamflows at a particular location to expected streamflows.

Agenda Item #4: Update: North Attleborough's ACO and ITA compliance

As background, Baskin explained that Attleborough began operating the Hillman well in the 1980s, but did not apply for or receive approval through the Interbasin Transfer Act. The matter was brought to the Water Resources Commission in 2003, and since then, the town has been working closely with WRC and DEP staff on actions to come in to compliance with the Water Management Act and the Interbasin Transfer Act. These actions, which include stream gaging, are described in a DEP Administrative Consent Order. Since the impacts of the project have already occurred, WRC staff are working with the town on ways to initiate the ITA application process and come into compliance with the Act. Baskin concluded that staff will recommend a way to move forward at a future WRC meeting.

Stankovich of North Attleborough noted that the well has been on line for 16 to 17 years, and they are aware of no problems associated with it. North Attleborough has been working with DCR and DEP to resolve this issue.

Agenda Item #5: Presentation: Request for Determination of Applicability – YMCA at Leggs Hill

Drury explained that the YMCA is developing a property that straddles the Marblehead and Salem town lines. It is petitioning to purchase 0.02 mgd of MWRA water through the town of Marblehead water system to serve the property. Drury noted that the MWRA “straddle policy” applies to this project. She explained why staff are recommending that the Interbasin Transfer Act does not apply to this project, as proposed. WRC policy states that a project is exempt from the Interbasin Transfer Act if it involves expansion of a water supply or wastewater system originally designed and constructed to accommodate larger flows than are currently experienced. She noted that Marblehead currently has the capacity to serve the portion of the YMCA property in Salem without expanding its connection from the MWRA and that the new customers will become customers of the Marblehead system, not a new member community of the MWRA.

Drury explained that Marblehead is supplied 100% by MWRA water. Physical engineering constraints (elevations, river crossings, wetlands) prevent the YMCA from connecting to the Salem water system.

Tisa asked for confirmation that the town of Marblehead understands that supplying another community will decrease its future capacity to serve customers in its own community. Drury noted that the Marblehead Water and Sewer Commission was notified of this meeting, and sent a letter confirming their willingness to serve the YMCA project. Yeo added that Marblehead, through its WMA registration, has all the water it will need in the future. Drury added that if the town of Marblehead needed to increase the capacity of its connection to the MWRA system, it would need to obtain approval from the Water Resources Commission. She reiterated that this project is not a “back-door way” for the city of Salem to join the MWRA water supply system. She indicated that a WRC vote on the project would be requested at the April WRC meeting.

In response to a question from Stevenson, Drury indicated that both Salem and Marblehead are members of the South Essex Sewerage District for wastewater disposal.

Agenda Item #6: Presentation: MDFW's role in the Massachusetts Water Policy

Richards provided a presentation on the role of the Massachusetts Division of Fisheries and Wildlife in the implementation of the 2004 Massachusetts Water Policy. He noted DFW's interests in key principles stated in the Massachusetts Water Policy, which are to protect and restore fish and wildlife habitat. He also discussed DFW's work on assessing target fish communities for the stressed basins report. The stressed basins report is intended to include biological components, and basin-by-basin assessments should be used. The work is very labor intensive, however. Three categories of fish are used: fluvial specialists, fluvial dependents, and macrohabitat generalists. The assessment work involves defining target fish communities appropriate for a natural river in southern New England, with the assumption that rivers should have river fish. These targets will be compared to actual species found. Target fish community assessments have been completed for the mainstems of four rivers: the Housatonic, Quinebaug, Charles, and Ipswich. He pointed out that mainstem and tributary habitats are very different, and some portions of the watershed may be more stressed than the mainstem. The methodology for these smaller tributary streams will use the index of biotic integrity (IBI), though Richards pointed to the need for a more flow-sensitive IBI for Massachusetts. The goal for the end of FY2007 is to develop a statewide framework for IBIs. Solutions to the labor issues may include funding via USGS, Riverways, the Nature Conservancy, and assistance from the University of Massachusetts. Richards also outlined other uses for the data, including fisheries-based watershed management plans, coldwater fishery resource designations, and incorporation into DEP's water quality standards. He concluded that biology should be incorporated into water management decisions. He added that fish sampling will help in refining biological assessment methodologies, which will be used to develop fisheries and habitat restoration goals and objectives.

Gildesgame asked how the work on target fish communities intersects with the work on developing streamflow standards. Hutchins responded that knowledge of the target fish communities will support work on stress classifications. In response to a question about instantaneous flows and fish sampling, Tisa remarked that knowing the expected composition of

the biological community provides a baseline against which to compare the proportions of fish species actually found in a particular stream. Such a baseline will help in assessing the impacts of any additional withdrawals on the fish community. Hutchins added that the streamflow data on which stress classifications are based are not instantaneous either; instead a hydrologic period of record is used. Tisa added that the target fish communities data enable analysts to add a biological component to the flow data, which, without a biological component, have little meaning.

Haas pointed to the need to establish the conditions that will create the “ideal” or target condition. Richards responded that the habitat mapping effort being undertaken by Piotr Parasiewicz of the Rushing Rivers Institute provides a partial answer by identifying stresses within each river reach and identifying priority areas for restoration. DFW is also looking at the habitat conditions of the quality rivers used to establish the target fish communities. Baskin noted the need to determine how to restore a fish community and how to prioritize restoration. Richards added that their work allows an assessment of current conditions and a triage for restoration. Knowing what fish are missing in an impacted stream enables analysts to identify specific habitat requirements for those species. He concluded by stating that the goal is to develop target fish communities for all river basins statewide in two years.

Meeting adjourned

Attachments distributed:

- Current Water Conditions in Massachusetts, March 9, 2006
- Guidance Document for Water Management Act Permitting Policy, January 17, 2006